

## **Abstract of the Disclosure**

The method and apparatus for computer control presented here is based on the novel use of laser produced speckle light patterns and a solid state optical mouse sensor. Two apparatuses for computer control are disclosed, one based on head movement and the other on finger tip movement. Both systems operate on the principle of imaging a speckle pattern onto a solid state optical mouse sensor and translating the movement of the speckle pattern into cursor movement. For the head tracker, the speckle pattern may be generated by passing a laser beam into the end of a fiber-optic bundle or into a specially generated holographic element. For the finger tip tracker, the speckle pattern is generated by focusing a laser beam onto the finger tip. For both types of computer control devices, the solid state optical mouse sensor that may be utilized is a HDNS-2000 sensor element from Agilent Technologies.